

PATENT: 06495 USA

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLI-

CATION OF : Jiang, et al.

SERIAL NO. : 10/755,426 : GRP. ART UNIT: 2811

FILED : January 12, 2004 : EXAMINER:

FOR : Dispersions And Films Comprising Conducting Polymer For

**Optoelectronic Devices** 

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

## TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. 1.97(b)

The Information Disclosure Statement submitted herewith is being filed within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d); within three months of date of entry into the national stage as set forth in § 1.491 in an international application; before the mailing date of a first Office action on the merits; or before the mailing of a first Office action after the filing of a request for continued examination under § 1.114.

Respectfully submitted,

Anne B. Kiernan Attorney for Applicant(s) Registration No. 36,566

7201 Hamilton Boulevard Allentown, PA 18195-1501 (610) 481-3598

Document6

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

	Substitute for form	n 1449/PTO		Complete if Known		
		OIP		Application Number	10/755,426	
		•	رخ	Filing Date	January 12, 2004	
	A M	IAY 1 0 2004	2)	First Named Inventor	Jiang, et al.	
		_		Art Unit	2811	
	<b>V</b>	PADEMARK OF	•	Examiner Name		
Sheet	1	of	4	Attorney Docket Number	06495 USA	

U. S. PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or		
		Number-Kind Code <sup>2 (# known)</sup>			Relevant Figures Appear		
		<sup>US-</sup> 6,391,481	May 21, 2002	Jonas, et al.			
		<sup>US-</sup> 4,910,645	Mar. 20, 1990	Jonas, et al.			
		<sup>US-</sup> 4,935,164	Jun. 19, 1990	Wessling, et al.			
		<sup>US-</sup> 4,959,430	Sep. 25, 1990	Jonas, et al.			
		<sup>US-</sup> 5,300,575	Apr. 5, 1994	Jonas, et al.			
		<sup>US-</sup> 5,498,761	Mar. 12, 1996	Wessling, et al.			
		<sup>US-</sup> 5,567,355	Oct. 22, 1996	Wessling, et al.			
		<sup>US-</sup> 5,766,515	Jun. 16, 1998	Jonas, et al.			
		<sup>US-</sup> 6,083,635	Jul. 4, 2000	Jonas, et al.			
		<sup>US-</sup> 6,175,441	Jan. 16, 2001	Heuer, et al.			
		US-					
		US-					
		US-					
		US-					
	<u> </u>	US-					

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or		
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (*			Relevant Figures Appear	T <sup>6</sup>	

Examiner	Date	
Signature	Considered	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformation and not considered. Include copy of this form with next communication to applicant. 1Applicant's unique citation designation number (optional). 2See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. 3Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language

PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0851-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

	Substitute for form	1449/PTO		Complete if Known		
				Application Number	10/755,426	
				Filing Date	January 12, 2004	
				First Named Inventor	Jiang, et al.	
				Art Unit	2811	
				Examiner Name		
Sheet	2	of	4	Attorney Docket Number	06495 USA	

		NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.							
		J. H. BURROUGHES, ET AL., Nature 347, p. 539, 1990							
		C. W. TANG, ET AL., Appl. Phys. Lett. 51, p. 913, 1987							
		P. K. H. HO, ET AL., Nature 404, p. 481, 1998							
		M. T. BERNIUS, ET AL., Adv. Mater. 12, p. 1737, 2000							
		X. Z. JIANG, ET AL., Synth. Met. 87, 175, 1997							
		X. Z. JIANG, ET AL., Adv. Funct. Mater. 12, p. 745, 2002							
		G. E. JABBOUR, ET AL., IEEE Journal of Quantum Electronics 36 (1), p. 12, 2000							
		Y. YANG, ET AL., Appl. Phys. Lett. 64, p. 1245, 1994							
		R. W. T. HIGGINS, ET AL., Adv. Funct. Mater. 11(6), p. 407, 2001							
		SOTZING, et al., Poly(thieno[3,4-b]thiophene) as a Low Band Gap Conducting Polymer and Electrochromic Material, Polymeric Materials: Science & Engineering 2001, 85, 604							
		LEE, et al., Poly(thieno[3,4-b]thiophene). A New Stable Low Band Gap Conducting Polymer, Macromolecules 2001, 34, 5746-5747							
		SOTZING, et al., Poly(thieno[3,4-b]thiophene): A p- and n-Dopable Polythiophene Exhibiting High Optical Transparency in the Semiconducting State, Marcromolecules 2002, 35, 7281-7286							
		LEE, et al., Aqueous Phase Polymerization of Thieno[3,4-b]Thiophene, Polymer Preprints 2002, 43(2), 568							
Examiner Signature		Date Considered		L					

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformation with MPEP 609. Draw line through citation if not in conformance and not

considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional).

Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for** Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

	Substitute for form	1449/PTO	•	Complete if Known		
				Application Number	10/755,426	
				Filing Date	January 12, 2004	
				First Named Inventor	Jiang, et al.	
				Art Unit	2811	
				Examiner Name		
Sheet	3	of	4	Attorney Docket Number	06495 USA	

	_				
		NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>		
		ROMAN, et al., High Quantum Efficiency Polythiophene/C60 Photodiodes, Adv. Mater. 1998, 10, No. 10, 774			
		LEE, et al., Thieno[3,4-b]thiophene as a Novel Low Oxidation Crosslinking Agent, Polymeric Materials: Sciene & Engineering 2002, 86, 195			
		JANG, et al., An Electrochemical Artificial Tongue Utilizing Intrinsically Conductive Polymers, Polymeric Materials: Science & Engineering 2002, 86, 152			
		RUSLING, et al., Sensor Applications of Layered Films of Sulfonated Polyaniline and Redox Proteins, Polymeric Materials: Science & Engineering 2002, 86, 19			
	Yu, et al., Design and Characterization of Films of Sulfonated Polyaniline and Red Proteins for Sensors, Polymeric Materials: Science & Engineering 2002, 86, 269				
		Yu, et al., Wiring of Enzymes to Electrodes by Ultrathin Conductive Polyion Underlayers: Enhanced Catalytic Response to Hydrogen Peroxide, Anal. Chem. 2003, 75, 4565-4571			
		JANG, et al., Poly (Terthiophene) Networks via Electrochemical Crosslinking of Terthiophene Derivatized Norbornylene Monomers and Polymers, Polymeric Materials: Science & Engineering 20022, 86, 205			
		SOTZING, et al., Oxidative Solid-State Crosslinking of Polymer Precursors to Pattern Intrinsically Conducting Polymers, Polymeric Materials: Science & Engineering 2002, 87, 371			
		JANG, et al., Intrinsically Conducting Polymer Networks of Poly(thiophene) via Solid-State Oxidative Cross-Linking of a Poly(norbornylene) Containing Terthiophene Moieties, Macromolecules 2002, 35, 7293-7300			
Examiner Signature		Date Considered	L		

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformation with MPEP 609. Draw line through citation if not in conformance and not

<sup>&</sup>lt;sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time value and the complete this form and/or suppressions for required to see the the Chief Information Cfficer. U.S. Patent and Trademark Officer. you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Peduation Act of 1005, no namena are require

	Substitute for for	m 1449/PTO		Complete if Known		
				Application Number	10/755,426	
				Filing Date	January 12, 2004	
				First Named Inventor	Jiang, et al.	
				Art Unit	2811	
				Examiner Name		
Sheet	4	of	4	Attorney Docket Number	06495 USA	

r			
		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		WANG, et al., Conductive Polymer Foams as Sensors for Volatile Amines, Chem. Mater. 2003, 15, 375-377	
		ALBERT, et al., Cross-Reactive Chemical Sensor Arrays, Chem. Rev. 2000, 100, 2595-2626	
		TSUIE, et al., Electroactive and Luminescent Polymers: New Fluorene-heteroxycle-based hybrids, Journal of Materials Chemistry, 1999, 9, 2189-2200	
		SOTZING, et al., Highly Sensitive Detection and Discrimination of Biogenic Amines Utilizing Arrays of Polyaniline/Carbon Black Composite Vapor Detectors, Chem. Mater. 2000, 12, 593-595	
		SOTZING, et al., Preparation and Properties of Vapor Detector Arrays Formed From Poly(3,4-Ethylenedioxy)thiophene - Poly(styrene sulfonate)/Insulating Polymer Composites, Anal. Chem. 2000, 72, 3181-3190	
Examiner Signature		Date Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformation with MPEP 609. Draw line through citation if not in conformance and not

Application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including agthering, preparing, and submitting the completed application for met to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.